

IN THE CLAIMS:

Please cancel Claims 11 and 12 without prejudice or disclaimer of subject matter and amend the claims as shown below. The claims, as currently pending in the application, read as follows.

1. (Currently Amended) An interface apparatus ~~for inputting information from an external apparatus to which information is input from an external apparatus according to a predetermined protocol which does not continuously transmit the same information~~, comprising:

a first circuit for waiting until a predetermined time has elapsed from a time when the information input from the external apparatus has changed, and after the predetermined time has elapsed from the time when the information input from the external apparatus has changed, fetching the information input from the external apparatus; and

a second circuit for determining whether the information fetched by the first circuit is the same as information fetched by the first circuit a previous time, ~~and in accordance with a determination that the information fetched by the first circuit is not the same as the information fetched by the first circuit the previous time, outputting the fetched information~~, and

~~wherein, in accordance with a determination that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, the second circuit does not output the fetched information~~ wherein the second circuit does not output the fetched information if it is determined that the information fetched by the

first circuit is the same as the information fetched by the first circuit the previous time,
thereby skipping the information not matching with the predetermined protocol, and
wherein the second circuit does output the fetched information if it is determined that the
information fetched by the first circuit is not the same as the information fetched by the
first circuit the previous time.

2. (Previously Presented) An apparatus according to claim 1, wherein said first circuit comprises:

a change detector for outputting a reset in the case where there is a change in the information input from the external apparatus;

a timer for inputting the reset output by the change detector and outputting a trigger after the elapse of a predetermined time from the input of the reset; and

a latch for inputting the trigger output by the timer and fetching the information input from the external apparatus in accordance with the input of the trigger.

3. (Previously Presented) An apparatus according to claim 1, wherein the external apparatus forms the information such that information is non-continuous information.

4. (Previously Presented) An apparatus according to claim 1, wherein the information which is input from the external apparatus is input to the first circuit and the information fetched by said first circuit is input to the second circuit.

5. (Currently Amended) A printer to which information is input from an external apparatus according to a predetermined protocol which does not continuously transmit the same information, comprising:

a first circuit for waiting until a predetermined time has elapsed from a time when the information input from [[an]] the external apparatus has changed, and after the predetermined time has elapsed from the time when the information input from the external apparatus has changed, fetching the information input from the external apparatus;

a second circuit for determining whether the information fetched by the first circuit is the same as information fetched by the first circuit a previous time, and in accordance with a determination that the information fetched by the first circuit is not the same as the information fetched by the first circuit the previous time, outputting the fetched information, and wherein, in accordance with a determination that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, the second circuit does not output the fetched information wherein the second circuit does not output the fetched information if it is determined that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, thereby skipping the information not matching with the predetermined protocol, and wherein the second circuit does output the fetched information if it is determined that the information fetched by the first circuit is not the same as the information fetched by the first circuit the previous time; and

a printer engine for printing the information output by the second circuit.

6. (Currently Amended) An information processing method by an apparatus for inputting information from an external apparatus to which information is input from an external apparatus according to a predetermined protocol which does not continuously transmit the same information, comprising:

a first step of a first circuit waiting until a predetermined time has elapsed from a time when the information input from the external apparatus has changed, and after the predetermined time has elapsed from the time when the information input from the external apparatus has changed, fetching the information input from the external apparatus; and

a second step of a second circuit determining whether the information fetched by the first step is the same as information fetched by the first step a previous time, and in accordance with a determination that the information fetched in the first step is not the same as the information fetched by the first step the previous time, outputting the fetched information, and

~~wherein, in accordance with a determination that the information fetched in the first step is the same as the information fetched by the first step the previous time, the fetched information is not output in the second step wherein the second step does not output the fetched information if it is determined that the information fetched by the first step is the same as the information fetched by the first step the previous time, thereby skipping the information not matching with the predetermined protocol, and wherein the second step does output the fetched information if it is determined that the information fetched by the first step is not the same as the information fetched by the first step the previous time.~~

7. (Previously Presented) A method according to claim 6, wherein said first step comprises:

a change detecting step of outputting a reset in the case where there is a change in the information input from the external apparatus;

a timer step of inputting the reset output by the change detecting step and outputting a trigger after the elapse of a predetermined time from the input of the reset; and

a latch step of inputting the trigger output by the timer step and fetching the information input from the external apparatus in accordance with the input of the trigger.

8. (Previously Presented) A method according to claim 6, wherein the external apparatus forms the information such that same information does not continue.

9. (Previously Presented) A method according to claim 6, wherein the first step is executed by a glitch noise filter and the second step is executed by a logical filter.

10. (Currently Amended) A printing method for a printing apparatus to which information is input from an external apparatus according to a predetermined protocol which does not continuously transmit the same information, comprising:

a first step of a first circuit waiting until a predetermined time has elapsed from a time when the information input from [[an]] the external apparatus has changed, and after the predetermined time has elapsed from the time when the information input from the external apparatus has changed, fetching the information input from the external apparatus;

a second step of a second circuit determining whether the information fetched in the first step is the same as information fetched by the first step a previous time, and in accordance with a determination that the information fetched in the first step is not the same as the information fetched by the first step the previous time, outputting the fetched information, and wherein, in accordance with a determination that the information fetched in the first step is the same as the information fetched by the first step the previous time, the fetched information is not output in the second step wherein the second step does not output the fetched information if it is determined that the information fetched by the first step is the same as the information fetched by the first step the previous time, thereby skipping the information not matching with the predetermined protocol, and wherein the second step does output the fetched information if it is determined that the information fetched by the first step is not the same as the information fetched by the first step the previous time; and

a step of printing the information output in the second step.

11. to 16. (Canceled)